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**Zambia**

**Demographic and  
Health Survey  
1992**

# ZAMBIA DEMOGRAPHIC AND HEALTH SURVEY 1992

## SUMMARY REPORT

**Background** ..... 3

**Fertility** ..... 4

    Levels and Trends ..... 4

    Marriage ..... 5

    Fertility Preferences ..... 6

**Family Planning** ..... 7

    Knowledge and Use of Family Planning ..... 7

    Attitudes toward Family Planning ..... 8

    Exposure to Family Planning Messages ..... 8

    Unmet Need for Family Planning ..... 9

**Maternal and Child Health** ..... 10

    Infant and Child Mortality ..... 10

    Antenatal Care and Assistance at Delivery ..... 11

    Breastfeeding ..... 11

    Immunisation ..... 12

    Treatment of Childhood Diseases ..... 12

    Nutritional Status of Children ..... 13

**Conclusions** ..... 14

**Fact Sheet** ..... 15



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This report summarises the findings of the 1992 Zambia Demographic and Health Survey (ZDHS) conducted by the University of Zambia, in collaboration with the Central Statistical Office and the Ministry of Health. Macro International Inc. provided technical assistance. Funding was provided by the U.S. Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the Norwegian Agency for Development (NORAD) and the Government of Zambia.

The ZDHS is part of the worldwide Demographic and Health Surveys (DHS) programme, which is designed to collect data on fertility, family planning and maternal and child health. Additional information about the Zambia survey may be obtained from the Department of Social Development Studies, School of Humanities and Social Sciences, University of Zambia, P.O. Box 32379, Lusaka, Zambia (Telephones 260632, 260637, 260640, 252514, 260644, 260645, 260626, 260627; Fax 260-1-253952; Telex ZA44370). Additional information about the DHS programme may be obtained by writing to: DHS, Macro International Inc., 8850 Stanford Boulevard, Suite 4000, Columbia, MD 21045, USA (Telephone 410-290-2800; Fax 410-290-2999).



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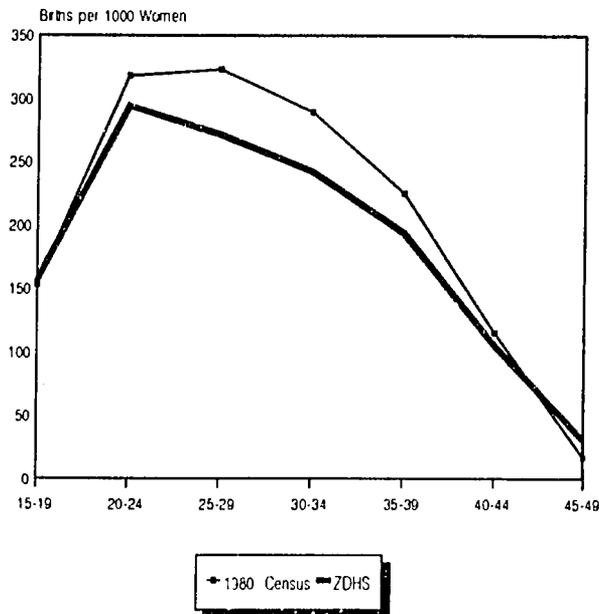
## Background

The Zambia Demographic and Health Survey (ZDHS) was a nationally representative sample survey of women age 15-49. The survey was designed to provide information on levels and trends of fertility, infant and child mortality, family planning knowledge and use, and maternal and child health. The data are intended for use by programme managers and policymakers to evaluate and improve family planning and maternal and child health programmes.

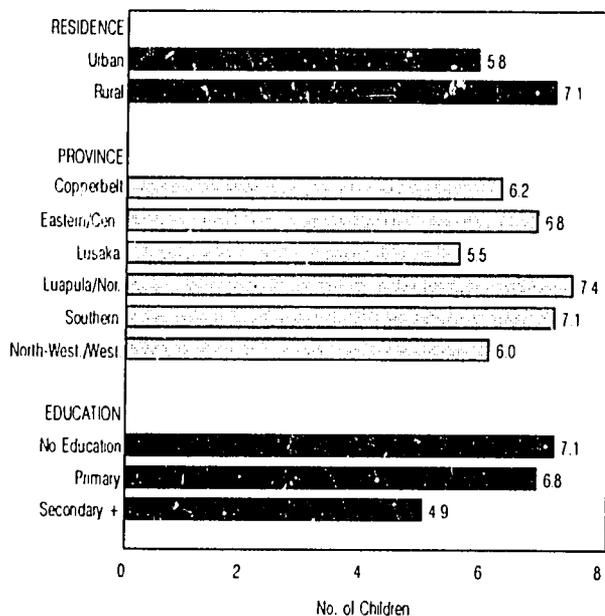
The ZDHS was carried out by the University of Zambia, in collaboration with the Central Statistical Office and the Ministry of Health. Financial and technical assistance were provided by Macro International Inc. under a contract with the United States Agency for International Development (USAID). Additional funding was provided by the United Nations Population Fund (UNFPA), the Norwegian Agency for Development (NORAD) and the Government of Zambia.

Between January and May 1992, more than 6000 households were visited and 7060 women were interviewed. Information was also collected on the children born to these women. For the 6275 children born in the five years preceding the survey, detailed questions were asked about their vaccination status, breastfeeding, food supplementation, and recent illness.

**Figure 1**  
Age-specific Fertility Rates  
Zambia, 1980 and 1992



**Figure 2**  
Total Fertility Rates by Selected  
Characteristics



## Fertility

### Levels and Trends

- Although fertility levels remain high, it appears they have been declining slightly over the past fifteen years. At current levels, Zambian women will give birth to an average of 6.5 children during their reproductive years.
- Fertility rates are highest in Luapula/Northern Provinces (7.4 children per woman) and lowest in Lusaka Province (5.5 children per woman), a difference of almost two children. Urban-rural residence also has an impact on fertility rates; a rural woman can expect to have an average of 7.1 children in her lifetime, compared to 5.8 for an urban woman.

*At current levels, a Zambian woman will give birth to an average of 6.5 children during her reproductive years.*

- The largest differentials in fertility are by education. At current rates, women with no formal education will give birth to an average of two more children during their reproductive years than women with at least secondary education (7.1 versus 4.9).

- Childbearing begins early in Zambia; over one quarter of teenagers (age 15-19) have borne a child. By the time they reach age 19, two-thirds of Zambian women are either mothers or are pregnant with their first child.

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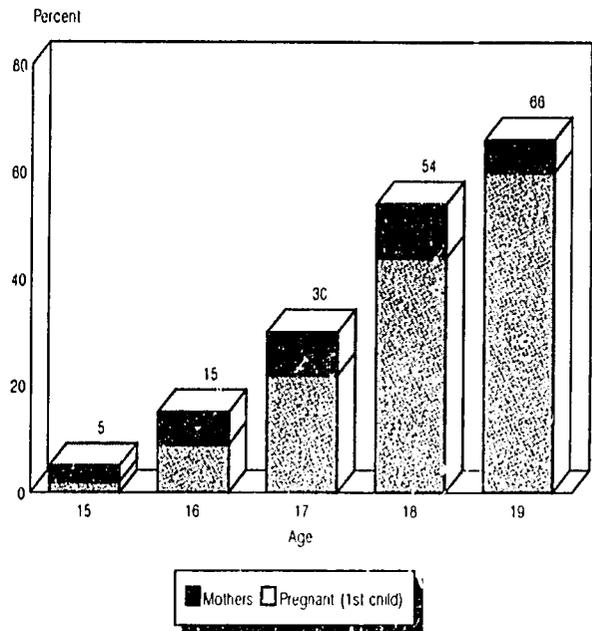
*By age 19, two-thirds of Zambian women are either mothers or are pregnant with their first child.*

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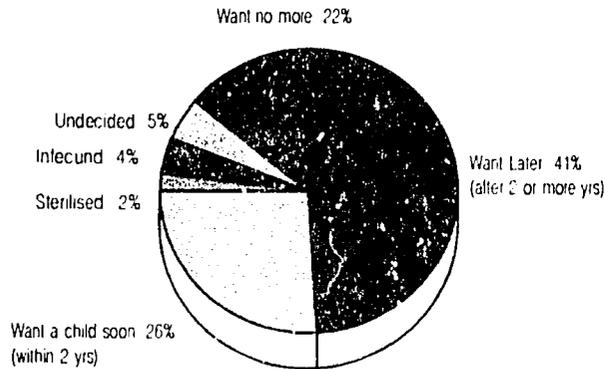
### Marriage

- Marriage is almost universal in Zambia; by the time women reach their early 30s, nearly all (98 percent) have married. Almost two-thirds (63 percent) of women of reproductive age are currently in a marital union, whether formal or informal.
- Eighteen percent of married women say their husbands have other wives. Polygynous unions are more common in rural areas and in Southern Province.
- Women in Zambia are marrying somewhat later than they did previously. The median age at first marriage has increased from 17 years or under among women now in their 30s and 40s to 18 years or older among women in their 20s. Women with secondary education generally marry three years later (19.9) than women with no education (16.7).

**Figure 3**  
Teenage Pregnancy and Motherhood



**Figure 4**  
**Fertility Preferences**  
 (Currently Married Women 15-49)

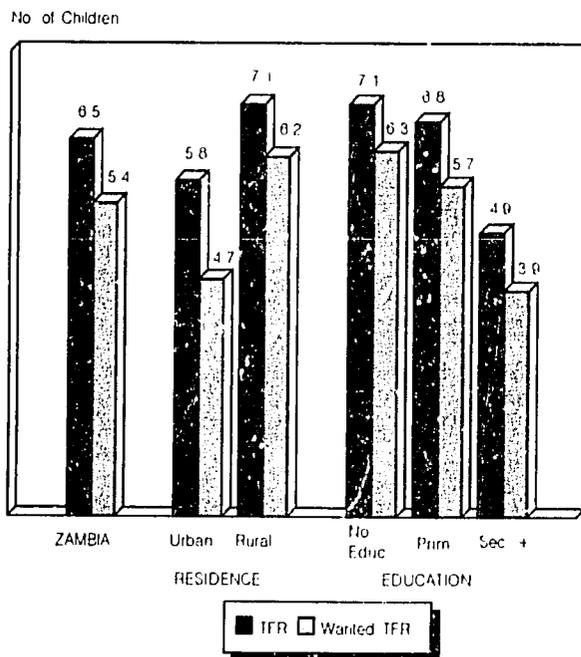


**Fertility Preferences**

- Over one-fifth (22 percent) of currently married women do not want to have any more children. An additional 41 percent want to wait at least two years before having another child.

*Almost two-thirds of married women in Zambia would like either to postpone their next birth at least two years or to have no more children.*

**Figure 5**  
**Total Fertility Rates and Wanted Fertility Rates**  
 (Women 15-49)



- When asked how many children they would like to have if they could live their lives over and choose exactly, women report an average ideal family of 5.8 children.
- Survey results suggest that if all unwanted births were eliminated, the total fertility rate at the national level would be 5.4 children per woman, considerably lower than the actual level of 6.5 children per woman.

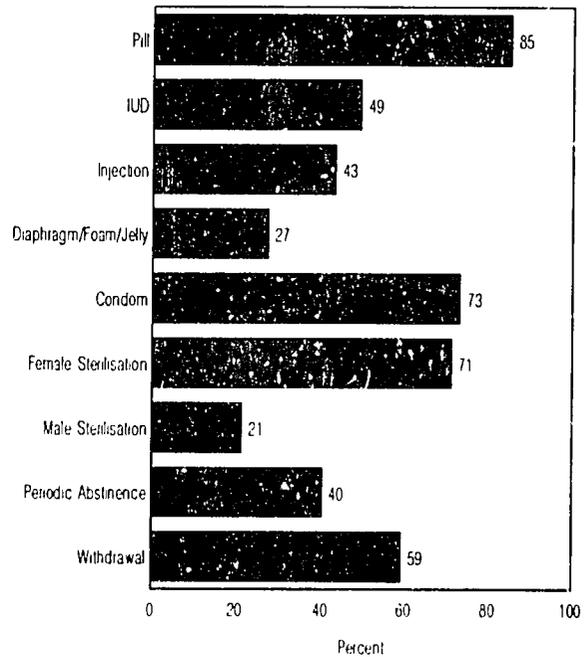
## Family Planning

### Knowledge and Use of Family Planning

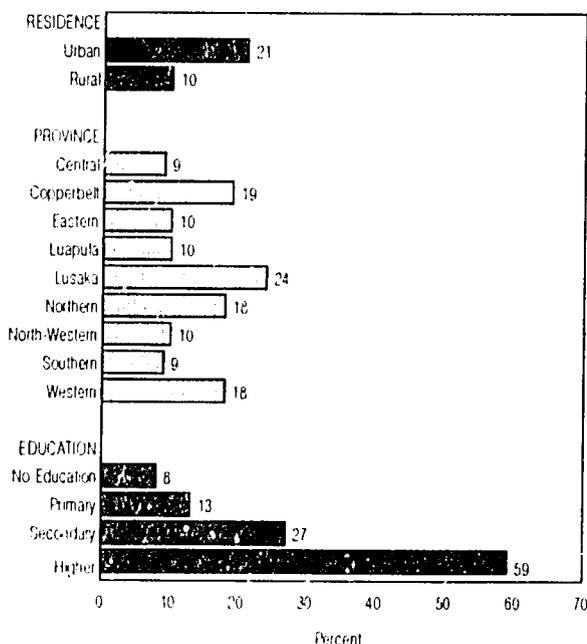
- Contraceptive knowledge is nearly universal; over 90 percent of married women report knowing about at least one modern contraceptive method. The most widely known methods are the pill, condom and female sterilisation. Moreover, almost all women who know a method also know of a place to obtain that method.
- Almost half (49 percent) of currently married women have used a contraceptive method at some time, but only 15 percent are currently using any method.
- Nine percent of married women are using modern methods of family planning, while 6 percent are using traditional methods. The most popular contraceptive methods are the pill (4 percent), withdrawal (3 percent), female sterilisation (2 percent) and condoms (2 percent).
- Contraceptive use is twice as high among urban women as among rural women (21 versus 10 percent). Moreover, urban users are more likely to be using modern methods such as the pill, female sterilisation and condoms, while rural women rely primarily on traditional methods such as withdrawal, herbs, and wearing strings around the waist.

*Fifteen percent of married women currently use a family planning method.*

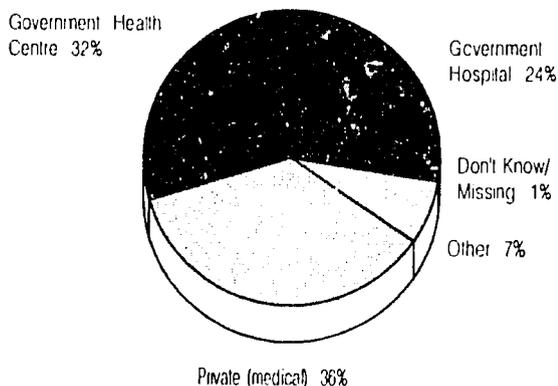
**Figure 6**  
Knowledge of Contraceptive Methods  
(Currently Married Women 15-49)



**Figure 7**  
**Current Use of Family Planning Methods**  
**(Currently Married Women 15-49)**



**Figure 8**  
**Sources of Supply among Current Users**  
**of Modern Contraceptive Methods**



- Contraceptive use is higher in the more urbanised provinces of Lusaka and Copperbelt. It is also higher among better educated women, ranging from 8 percent of married women with no education to 59 percent of those with secondary education.
- The government is the most important provider of family planning services, supplying over half of the women who use modern methods.

**Attitudes toward Family Planning**

- Most women (81 percent of married, non-sterilised women who know of a method) approve of couples using family planning to avoid a pregnancy and most also say their husbands approve of family planning.
- Most married women (58 percent) who know a contraceptive method say they have discussed family planning with their husbands in the year prior to the survey.

**Exposure to Family Planning Messages**

- Only one in five Zambian women was exposed to a message about family planning on the radio or television in the month preceding the survey. Most of the women who heard or saw a message live in urban areas.

*Only one in five women was exposed to a family planning message on the radio or television in the month preceding the survey.*

- Three-quarters of women believe that it is acceptable to broadcast family planning messages on the radio or television; one-quarter find such messages unacceptable.

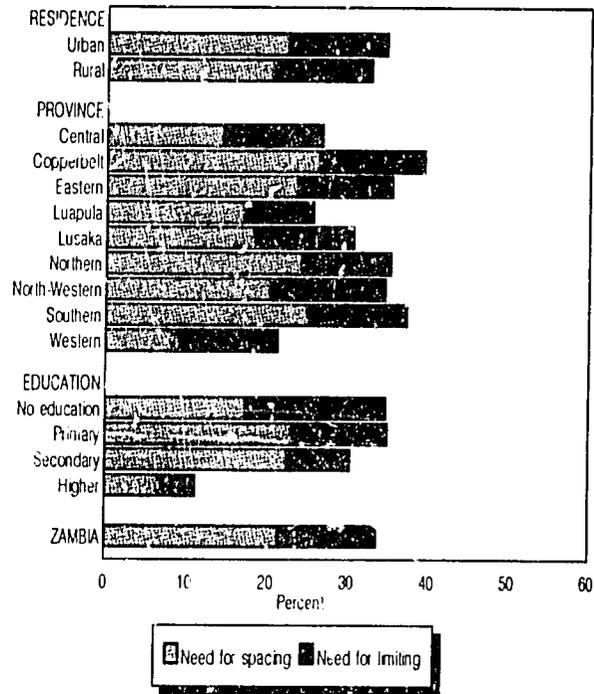
**Unmet Need for Family Planning**

- One-third of married women have an unmet need for family planning services, that is, either they do not want any more children or they want to wait at least two years before having another child, but are not using contraception. Twenty-one percent of married women are in need of family planning to space their next child, while 12 percent are in need because they want to stop childbearing.

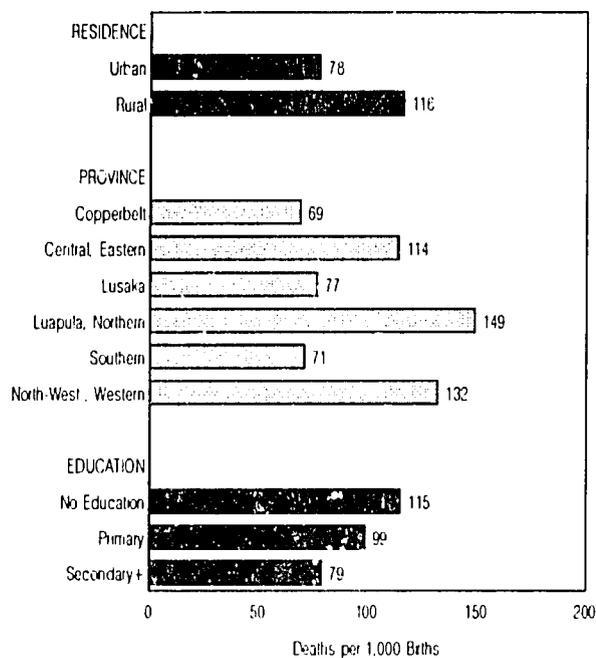
*One in three married women has an unmet need for family planning.*

- Combined with the 15 percent of married women who are currently using a contraceptive method, the total demand for family planning comprises almost half (49 percent) of married women.

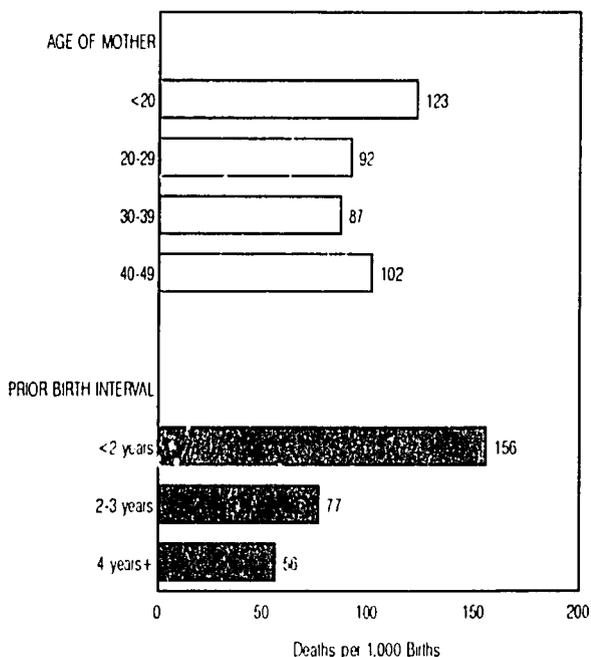
**Figure 9**  
Unmet Need for Family Planning



**Figure 10**  
**Infant Mortality by Selected Characteristics**



**Figure 11**  
**Infant Mortality by Demographic Characteristics**



**Maternal and Child Health**

**Infant and Child Mortality**

- One of the most striking findings from the ZDHS is the high levels of infant and child mortality in Zambia. Currently, nearly one in five children dies before reaching age five (191 deaths per 1000 births) and the infant mortality rate is 107 deaths per 1000 births.
- Of even greater concern is the fact that these rates have increased in recent years. From 1977-81 to 1987-91, under-five mortality rose by 15 percent, from 152 to 191 deaths per 1000 births. Possible reasons for the high mortality are the deteriorating economy, undernutrition, and AIDS.

*One in five children born in Zambia dies before reaching age five.*

- Infant and child mortality is higher in rural than in urban areas. It is also higher in Luapula/Northern Provinces and lowest in Southern Province.
- ZDHS data indicate that spacing births can potentially reduce childhood mortality levels; children born less than two years after a preceding birth are almost three times more likely to die during their first year of life than children born at least four years after a preceding birth.

### Antenatal Care and Assistance at Delivery

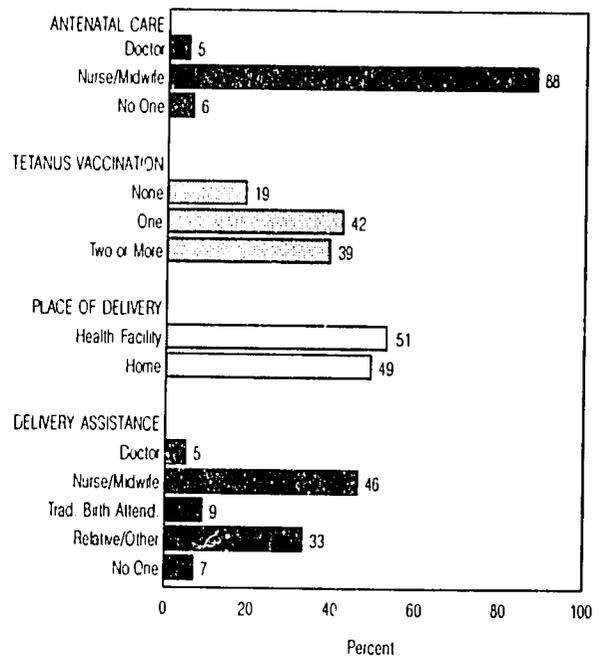
- Antenatal care is widespread in Zambia; 92 percent of births in the five years before the survey were to mothers who had received antenatal care from a doctor, nurse or midwife. For 81 percent of births, mothers received a tetanus toxoid injection during pregnancy.
- Half of the babies born in Zambia are delivered in health facilities and half are born at home. For this reason, only half of births are assisted by medically trained personnel; one-third are assisted by relatives, 9 percent by traditional birth attendants, and 7 percent are delivered without assistance.

*Half of the babies born in Zambia are delivered at home.*

### Breastfeeding

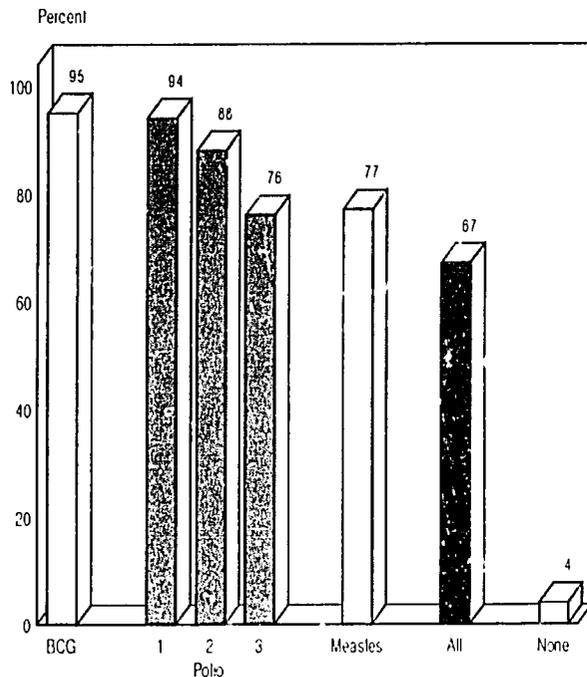
- Almost all babies (98 percent) are breastfed. The median duration of breastfeeding is relatively long (19 months). Even in urban areas and among women of all education levels, the median duration is at least 18 months.
- Supplemental liquids and foods are introduced at an early age. By age 2-3 months, only 11 percent of children are being exclusively breastfed and half are being given food or liquid other than water. Use of a bottle with a nipple is uncommon in Zambia.

**Figure 12**  
Antenatal Care, Tetanus Vaccinations, Place of Delivery, and Assistance at Delivery



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**Figure 13**  
**Vaccination Coverage among Children**  
**Age 12-23 Months**



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### Immunisation

- Of children age 12-23 months, 95 percent have been vaccinated against tuberculosis (BCG), 94 percent have received at least one dose of DPT and polio vaccines, and 77 percent have been vaccinated against measles.
- Sixty-seven percent of children age 12-23 months have been fully immunised and only four percent have not received any vaccinations.

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*Two-thirds of children age 12-23 months have been fully immunised.*

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### Treatment of Childhood Diseases

- During the two weeks preceding the survey, 13 percent of children under age five had symptoms of acute lower respiratory infection (cough with difficult breathing). Almost two-thirds of those children were taken to a health facility for treatment.
- Malaria is endemic in Zambia and is the most common cause of hospital admission. In the same two-week period, 44 percent of children under five suffered from fever (the major manifestation of malaria). Sixty-one percent were taken to a health facility.
- Twenty-three percent of children had diarrhoea in the two weeks before the survey. Over half of these children were given a solution prepared from ORS packets (oral rehydration salts), and 23 percent received a homemade solution of sugar, salt, and water.

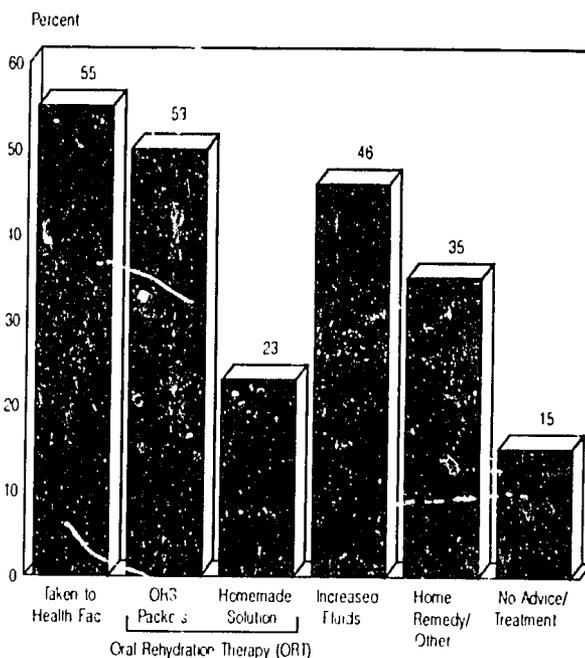
- Knowledge of ORS packets is widespread in Zambia; 95 percent of women who gave birth in the five years before the survey have heard of ORS and 78 percent have used it.

*Ninety-five percent of mothers of young children know about ORS and 78 percent have used it.*

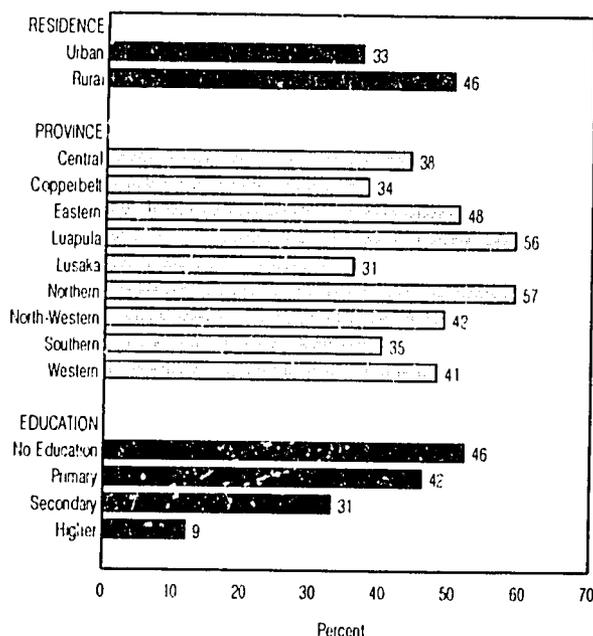
### Nutritional Status of Children

- ZDHS data indicate that undernutrition is an obstacle to improving child health; 40 percent of children under age five are *stunted* or short for their age, compared to an international reference population. The prevalence of stunting increases with age, from 9 percent of children under 6 months of age to 50 percent of three year olds. Stunting reflects chronic undernutrition: when children receive insufficient calories and protein over a long period of time, their growth is retarded.
- Stunting is more prevalent in rural areas, in Northern and Luapula Provinces, and among the children of mothers with no education.
- Five percent of children are *wasted* or thin for their height. Wasting suggests acute undernutrition in recent months and may be related to illness. One-quarter of children under five are *underweight* for their age.

**Figure 14**  
Treatment of Diarrhoea in the Two Weeks Preceding the Survey (Children under Five Years)



**Figure 15**  
Chronic Undernutrition (Stunting) by Selected Characteristics



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## Conclusions

### Fertility and Family Planning

Although fertility levels in Zambia remain high with a total fertility rate of 6.5 children per woman, it appears that they have declined in recent years, probably due to a modest increase in contraceptive use. Currently, 15 percent of married women use a method of family planning. However, *unmet need* for family planning is high; one-third of Zambian women are not using family planning despite the fact that they either do not want to have any more children or they want to space their next birth. Satisfying this unmet need by providing more accessible family planning services would no doubt reduce fertility even further. Other possible strategies for reducing fertility might include efforts to reduce childbearing among teenagers, one-quarter of whom have borne a child.

### Maternal and Child Health

The high and increasing level of child mortality in Zambia is the most disturbing finding from the ZDHS. One of every five Zambian children dies before reaching their fifth birthday and this rate has increased in the past fifteen years.

It is difficult to ascertain the reasons for the high child mortality rates, however ZDHS data do reveal some possible causes. Although antenatal care and tetanus toxoid vaccinations are wide-

spread in Zambia, only half the children are born in medical facilities. Thus, a large proportion of babies are born without medical assistance. Undernutrition is another factor which almost surely contributes to the high child mortality. Forty percent of children under five are chronically undernourished as assessed by height-for-age. Short inter-birth intervals may also contribute to high mortality. ZDHS data indicate that children born less than two years after a preceding birth suffer considerably higher mortality rates than children born at least four years after a preceding birth. All three of these factors are more prevalent in Northern and Luapula Provinces, the two provinces with the highest child mortality rates.

One area in which Zambia has made remarkable strides is in vaccination coverage. Two-thirds of children age 12-23 months have received all their childhood immunisations and only four percent have not received any vaccinations at all.

Furthermore, almost all babies are breastfed, most of them for a relatively long time. Unfortunately, many are given supplemental foods and liquids at an early age, which is not only unnecessary, but also potentially dangerous to the child's nutritional status and a possible source of infection. Mothers should be taught the proper age at which to introduce supplementary foods to their babies.

# Fact Sheet

## 1990 Population Data Central Statistical Office

Total population (millions) .....	7.8
Urban population (percent) .....	42
Annual natural increase (percent) <sup>1</sup> .....	3.6
Population doubling time (years) <sup>1</sup> .....	19
Crude birth rate (per 1,000 population) <sup>1</sup> .....	49.5
Crude death rate (per 1,000 population) <sup>1</sup> .....	13.2
Life expectancy at birth male (years) <sup>1</sup> .....	52.9
Life expectancy at birth female (years) <sup>1</sup> .....	55.0

## Zambia Demographic and Health Survey 1992

### Sample Population

Women age 15-49 .....	7,060
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### Background Characteristics of Women Interviewed

Percent urban .....	51.5
Percent with no education .....	16.4
Percent attended secondary or higher .....	23.9

### Marriage and Other Fertility Determinants

Percent of women 15-49 currently married .....	63.1
Percent of women 15-49 ever married .....	74.6
Median age at first marriage among women age 25-49 .....	17.4
Median duration of breastfeeding (in months) <sup>2</sup> .....	18.7
Median duration of postpartum amenorrhoea (in months) <sup>2</sup> .....	11.7
Median duration of postpartum abstinence (in months) <sup>2</sup> .....	4.4

### Fertility

Total fertility rate <sup>3</sup> .....	6.5
Mean number of children ever born to women age 45-49 .....	8.1

### Desire for Children

Percent of currently married women who:	
Want no more children .....	22.0
Want to delay their next birth at least 2 years .....	40.6
Mean ideal number of children among women 15-49 <sup>4</sup> .....	5.8
Percent of women giving a non-numeric response to ideal family size .....	
Percent of births in the last 5 years which were:	
Unwanted .....	7.4
Mistimed .....	26.0

### Knowledge and Use of Family Planning

Percent of currently married women:	
Knowing any method .....	93.7
Knowing a modern method .....	90.7
Knowing a modern method and	
knowing a source for the method .....	87.2
Had ever used any method .....	49.2
Currently using any method .....	15.2

### Percent of currently married women currently using:

Pill .....	4.3
IUD .....	0.5
Injection .....	0.1
Diaphragm, foam, jelly .....	0.1
Condom .....	1.8
Female sterilisation .....	2.1
Male sterilisation .....	0.0
Periodic abstinence .....	0.9
Withdrawal .....	3.0
Other traditional .....	2.2

### Mortality and Health

Infant mortality rate <sup>5</sup> .....	107.2
Under-five mortality rate <sup>5</sup> .....	190.7
Percent of births <sup>6</sup> whose mothers:	
Received antenatal care from medical provider .....	92.4
Received 2 or more tetanus toxoid injections .....	39.2
Percent of births <sup>6</sup> whose mothers were assisted at delivery by:	
Doctor .....	4.7
Midwife/Trained nurse .....	45.8
Traditional birth attendant .....	9.4
Percent of children 0-1 month who are breastfeeding .....	98.8
Percent of children 4-5 months who are breastfeeding .....	100.0
Percent of children 10-11 months who are breastfeeding .....	98.1
Percent of children 12-23 months who received: <sup>7</sup>	
BCG .....	95.1
DPT (three doses) .....	76.8
Polio (three doses) .....	76.4
Measles .....	77.0
All vaccinations .....	66.6

### Percent of children under 5 years<sup>8</sup> who:

Had diarrhoea in the 2 weeks preceding the survey .....	22.8
Had a cough accompanied by rapid breathing in the 2 weeks preceding the survey .....	12.7
Had a fever in the 2 weeks preceding the survey .....	43.7
Are chronically undernourished (stunted) <sup>9</sup> .....	39.6
Are acutely undernourished (wasted) <sup>9</sup> .....	5.1

<sup>1</sup> Based on projections of 1980 census data

<sup>2</sup> Current status estimate based on births during the 36 months preceding the survey

<sup>3</sup> Based on births to women 15-49 years during the period 0-2 years preceding the survey

<sup>4</sup> Excludes women who gave a non-numeric response to ideal family size

<sup>5</sup> Rates are for the period 0-5 years preceding the survey (1987 to 1992)

<sup>6</sup> Figure includes births in the period 1-59 months preceding the survey

<sup>7</sup> Based on information from vaccination cards and mothers' reports

<sup>8</sup> Figures include children born in the period 1-59 months preceding the survey

<sup>9</sup> *Stunted*: percentage of children whose height-for-age z-score is below -2SD based on the NCHS/CDC/WHO reference population; *wasted*: percentage of children whose weight-for-height z-score is below -2SD based on the NCHS/CDC/WHO reference population.



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